ORDER NO. MD8907033A4

Service Manual

Stereo Radio Cassette Recorder

Radio Cassette

RX-FS400

- Please file and use this Service Manual together with the service manual for Model No. RX-FS400 Order No. MD8901001C1
- This Service Manual indicates the main differences between; Original RX-FS400 [for (P) mark area] and RX-FS400 (PX).

Color

(K) ..... Black Type

Area

Country Code	Area	Color
(PX)	Europe-PX Far East-PX	(K)

CHANGES

■ SPECIFICATIONS

RX-FS400 (P) (Original)		**RX-FS400 (PX)**	
General:		**General:**	
Power Requirement:	AC; 120 V, 60 Hz	Power Requirement:	AC; 110~127 V 200~220V 230~250V 50/60 Hz
Power Consumption:	13 W (AC only)	Power Consumption:	15 W (AC only)
Weight:	(2.3 kg) without batteries	Weight:	(2.2 kg) without batteries

■ PARTS COMPARISON TABLE

Notes: 1. Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
2. [M] Indicates parts that are supplied by MESA.

Ref. No.	Description	Parts Number		Remarks
		RX-FS400 (P) (Original)	**RX-FS400 (PX)**	
CAPACITOR				
C316	CAPACITOR, 220μF, 16V	ECEAICV221SE	**ECEA1CU221B**	Changed
C114, 214, 312, 320	CAPACITOR, 0.01μF, 50V	ECKD1H103ZF	**ECKT1H103MD**	Changed
INTEGRATED CIRCUITS				
1C2	INTEGRATED CIRCUITS	RVIBA4237L	**RVIBA4236L**	Changed
CABINET AND CHASSIS				
8	POWER PCB [M]	RUP2528YAC	**RUP2528WAG**	Changed
14	REAR CABINET ASS'Y [M]	RYFXFS400PKS	**RYFXFS400PXK**	Changed
SW402⚠	VOLTAGE SELECTOR	—	**RSR3A01ZA-H**	Added
TRANSFORMER				
T401⚠	POWER TRANSFORMER [M]	RLT5K3C10A-X	**RLT5K3X10A-X**	Changed
ACCESSORIES				
14B	NAME PLATE [M]	—	**RGT20SSA-O**	Added
A1⚠	AC POWER CORD	RJA22XA-S	**RJA21ZC-F**	Changed
⚠	AC CORD ADAPTOR	—	**RJP120ZDS-K**	Added

Panasonic®

Matsushita Electric Industrial Co., Ltd.
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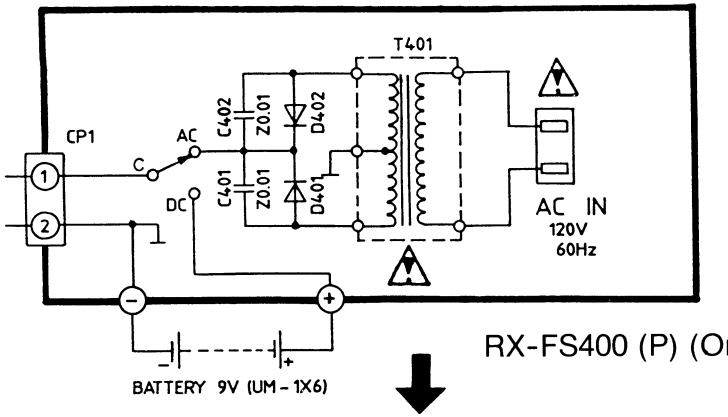
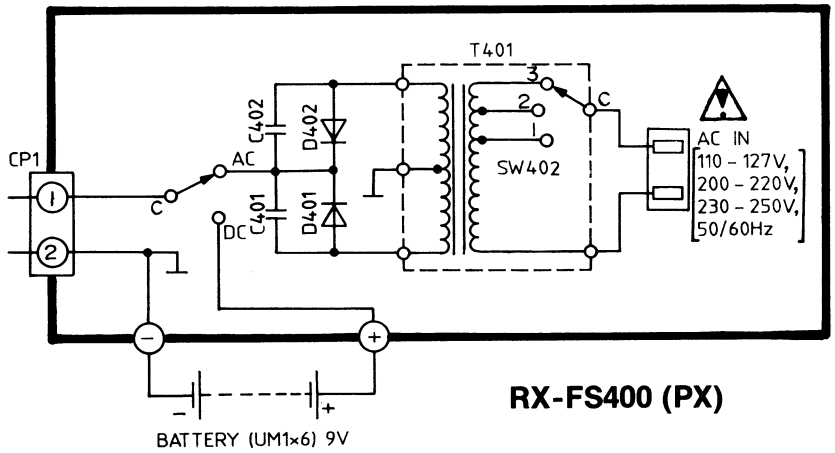
SCHEMATIC DIAGRAM (POWER SUPPLY CIRCUIT)

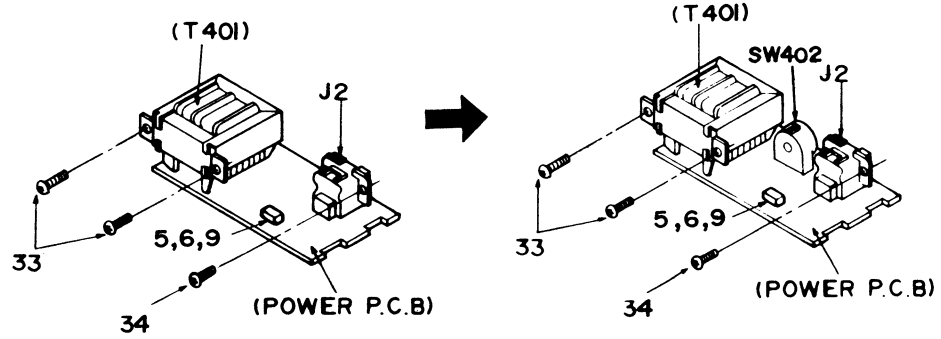


RX-FS400 (P) (Original)



RX-FS400 (PX)

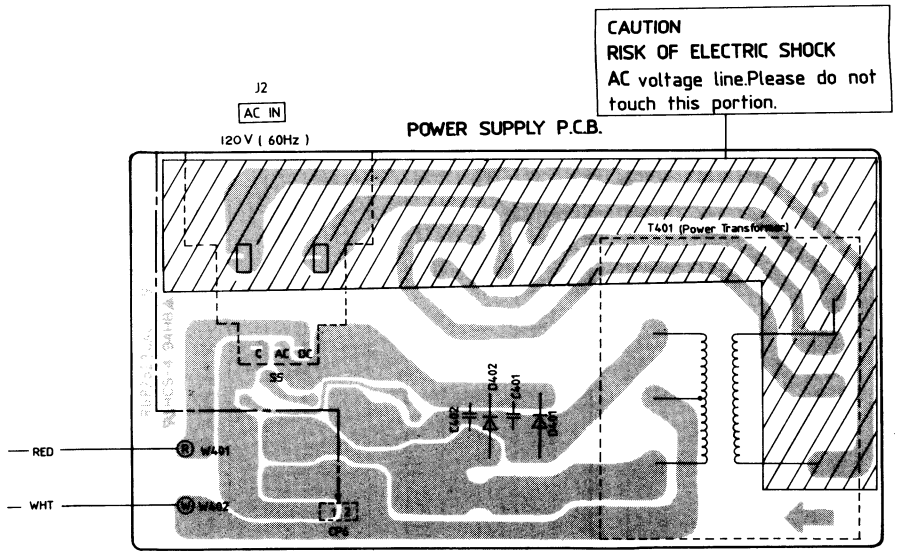
CABINET PARTS LOCATION



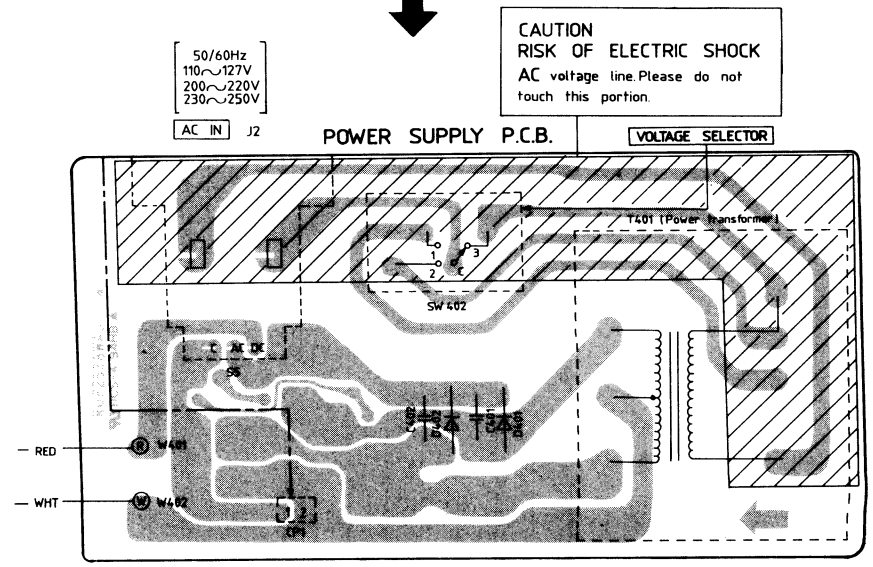
RX-FS400 (P) (Original)

RX-FS400 (PX)

CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



RX-FS400 (P) (Original)



RX-FS400 (PX)

Printed in Singapore
V890700600R/P

ORDER NO. MD8901001C1
A1

Service Manual

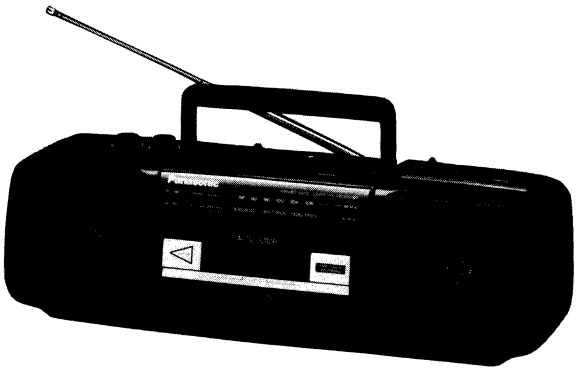
Radio Cassette

Stereo Radio Cassette Recorder

RX-FS400

Color

(K) ..... Black Type



Area

Country Code	Area	Color
(P)	U.S.A.	(K)
(PC)	Canada	

RX-FS400 MECHANISM SERIES

■ SPECIFICATIONS

General:

Power Requirement:	AC; 120 V, 60 Hz Battery; 9 V (Six "D" Size Batteries)
Power Consumption:	13 W (AC only)
Power Output:	7 W (3.5 W×2)...RMS (max.)
Speaker:	4" (10 cm) PM Dynamic Speaker (2.7Ω)
Output:	HEADPHONES; 32Ω, ∅3.5
Dimensions:	17 1/16" (W)×5 5/8" (H)×5 3/4" (D) (450×143×146 mm)
Weight:	5 lbs 1 oz (2.3 kg) without batteries

Radio Section:

Radio Frequency Range:	FM; 88~108 MHz AM; 525~1705 kHz
Intermediate Frequency:	FM; 10.7 MHz AM; 455 kHz
Sensitivity:	FM; 4.2 μV/50 mW output (−3 dB Limit Sens.) AM; 252 μV/m/50 mW output

Tape Deck Section:

Frequency Response:	70~10,000 Hz
Recording System:	DC bias, Magnet erase
Tape Speed:	1 7/8 ips (4.8 cm/s)
Track System:	4-track 2-channel stereo recording and playback

Weights and dimensions shown are approximate.
Design and specifications are subject to change without notice.

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SAFETY PRECAUTIONS (For U.S.A.)

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, sheilds, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

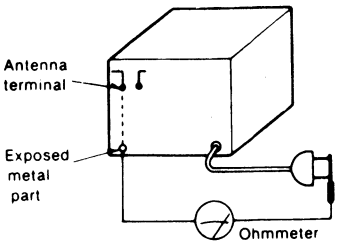


Fig. 1

Resistance = 3MΩ—5.2MΩ

INSULATION RESISTANCE TEST (For U.S.A.)

1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads, antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3MΩ and 5.2MΩ to all exposed parts*. (Fig. 1) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. 2)
   * **Note:** Some exposed parts may be isolated from the chassis by design. These will read infinity.
4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

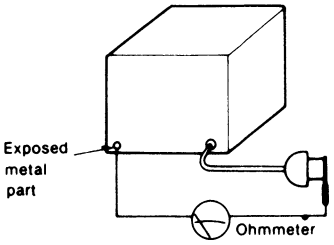
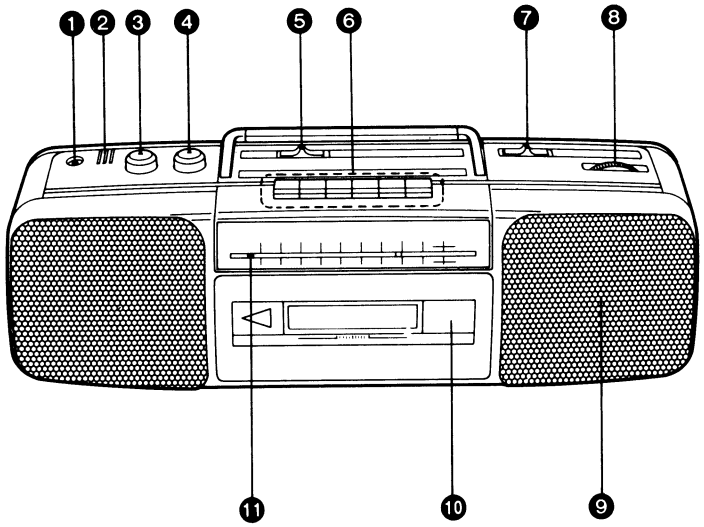
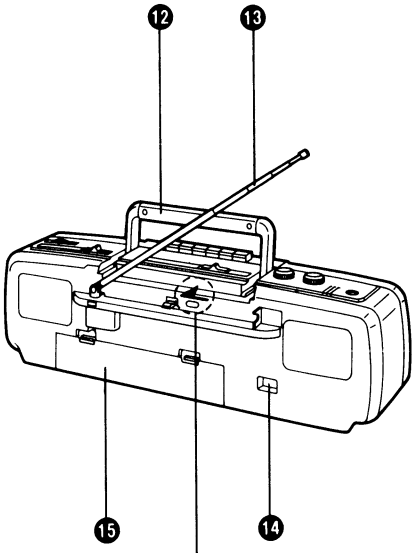


Fig. 2

Resistance = Approx ∞

LOCATION OF CONTROLS AND COMPONENTS





When the tape is caught in the pinch roller, etc. Release the tape by turning the pulley on the motor with the screwdriver in the direction of the arrow.

❶ Headphones Jack (PHONES) (∅3.5, 32Ω)
❷ Built-in Microphone (MIC)
❸ Volume Control (VOLUME)
❹ Tone Control (TONE)
❺ Function Selector (SELECTOR)
❻
- **Pause Button (❚❚ PAUSE)**
- **Stop/Eject Button (⏏ STOP/EJECT)**
- **Fast Forward Button (◀◀ FF)**
- **Rewind Button (▶▶ REW)**
- **Playback Button (◀ PLAY)**
- **Record Button (● RECORD)**

❼ Band Selector (BAND)
❽ Tuning Control (TUNING)
❾ Speakers (10 cm, 2.7Ω)
❿ Cassette Compartment
⓫ FM Stereo Indicator (FM STEREO)
⓬ Handle
⓭ Telescopic Antenna
⓮ AC Socket (AC IN~)
⓯ Battery Compartment

BATTERY SERVICE LIFE

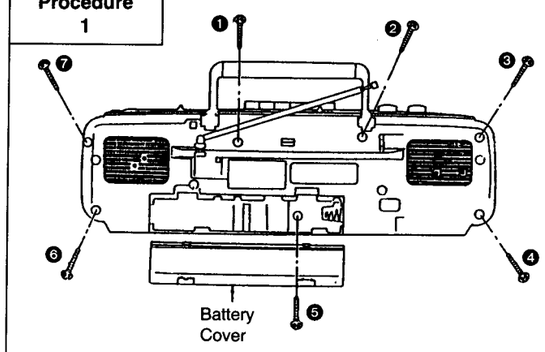
UM-1 (D-size) Batteries
Approx. 23 hours of recording (EIAJ)
Approx. 25 hours of playback (EIAJ) with volume set at 3/4 position

The above battery service life is measured according to the conditions set forth by EIAJ (Electronic Industries Association of Japan). As the battery service life varies with the method of operation and environmental conditions, use these values as reference.

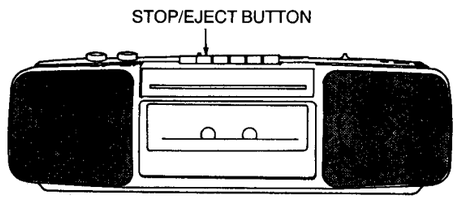
DISASSEMBLY INSTRUCTIONS

Ref. No. 1 — Removal of the Front Cabinet

Procedure 1



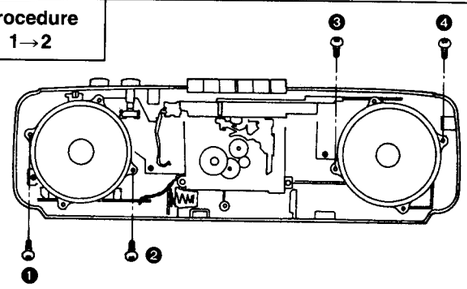
1. Remove the battery cover.
2. Remove 7 screws (❶~❼).



3. Press the stop/eject button and then open the cassette compartment.

Ref. No. 2 — Removal of the Speaker

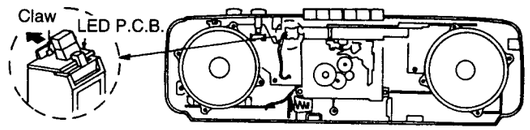
Procedure 1→2



●Remove 4 screws (❶~❹).

Ref. No. 3 — Removal of the LED P.C.B.

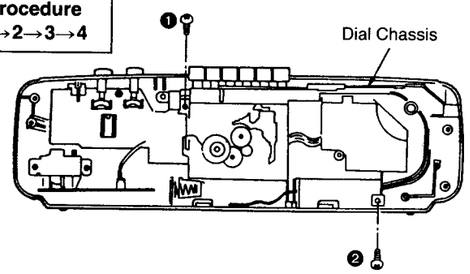
Procedure 1→3



●Remove the claw in the direction of arrow.

Ref. No. 4 — Removal of the Dial Chassis

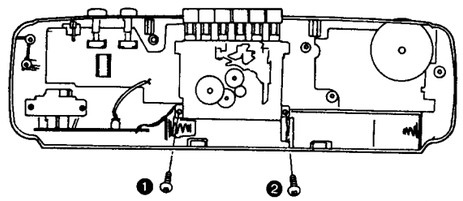
Procedure 1→2→3→4



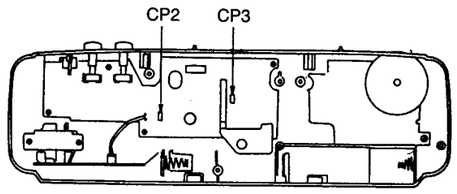
●Remove 2 screws (❶, ❷).

Ref. No. 5 — Removal of the Mechanism

Procedure 1→2→3→4→5



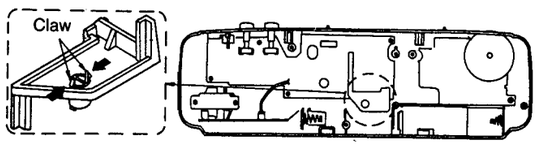
1. Remove 2 screws (❶, ❷).



2. Remove 2 connectors (CP2, CP3).

Ref. No. 6 — Removal of the Record Lever

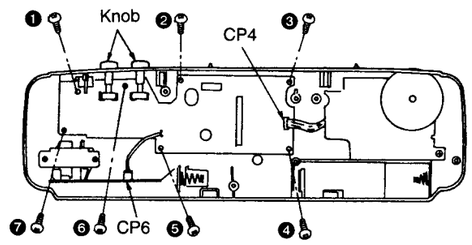
Procedure 1→2→3→4→5→6



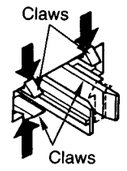
●Push the claw in the direction of arrow.

Ref. No. 7 — Removal of the Main P.C.B.

Procedure 1→2→3→4→5→6→7



1. Pull out 2 knobs.
2. Remove 2 connectors (CP4, CP6).
3. Remove 7 screws (❶~❼).

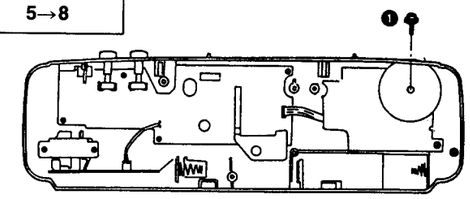


—Removal of the Selector Knob—

●Remove 4 claws in the direction of arrows.

Ref. No. 8 — Removal of the Tuning Knob

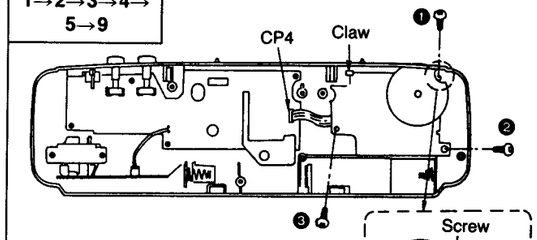
Procedure 1→2→4→5→8



●Remove screw (❶).

Ref. No. 9 — Removal of the Tuner P.C.B.

Procedure 1→2→3→4→5→9



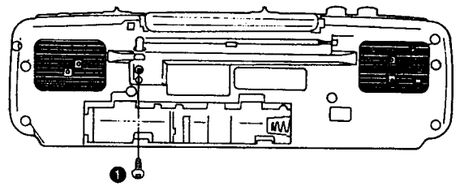
1. Fully turn the tuning knob in the direction of arrow.
2. Remove the connector (CP4).
3. Remove 3 screws (❶~❸).
4. Remove the claw.

—Removal of the Band Knob—

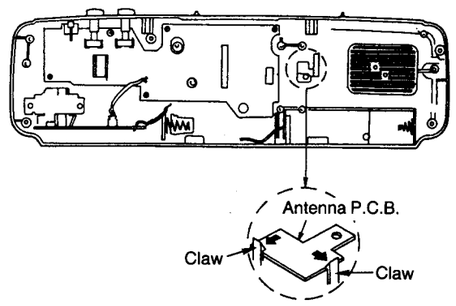
●Remove 4 claws in the direction of arrows.

Ref. No. 10 — Removal of the Antenna P.C.B.

Procedure 1→2→3→4→5→8→9→10



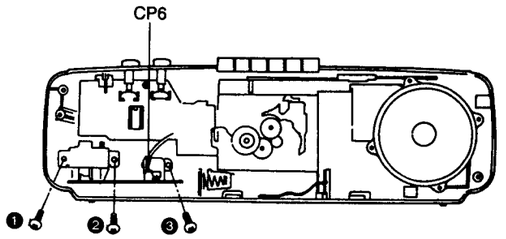
1. Remove screw (❶).



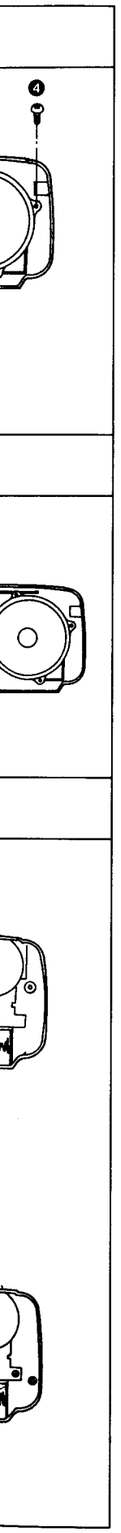
2. Remove 2 claws in the direction of arrows.

Ref. No. 11 — Removal of the Power P.C.B.

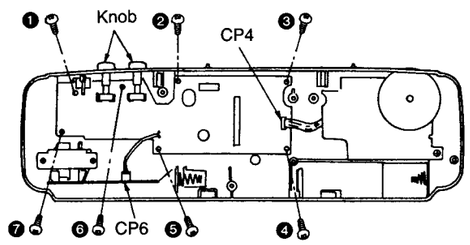
Procedure 1→2→11



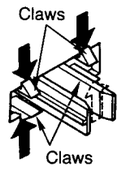
1. Remove 2 screws (❶, ❷).
2. Remove screw (❸).
3. Remove connector (CP6).



Ref. No. 7	Removal of the Main P.C.B.
Procedure 1→2→3→4→ 5→6→7	



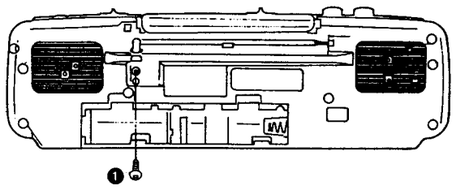
1. Pull out 2 knobs.
2. Remove 2 connectors (CP4, CP6).
3. Remove 7 screws (❶~❼).



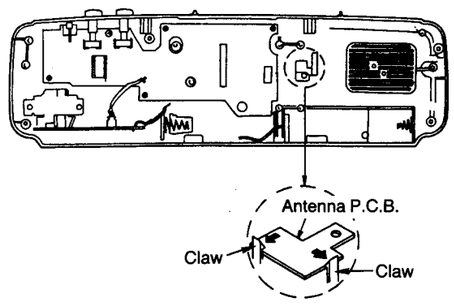
—Removal of the Selector Knob—

- Remove 4 claws in the direction of arrows.

Ref. No. 10	Removal of the Antenna P.C.B.
Procedure 1→2→3→4→ 5→8→9→10	

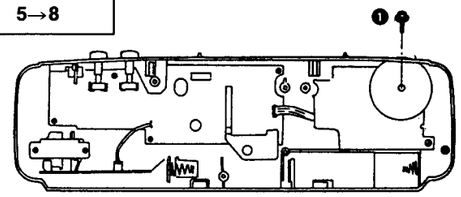


1. Remove screw (❶).



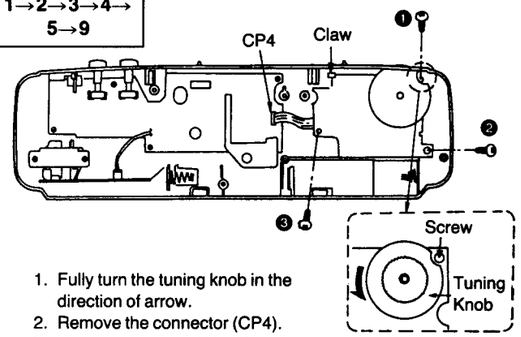
2. Remove 2 claws in the direction of arrows.

Ref. No. 8	Removal of the Tuning Knob
Procedure 1→2→4→ 5→8	

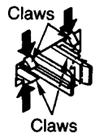


- Remove screw (❶).

Ref. No. 9	Removal of the Tuner P.C.B.
Procedure 1→2→3→4→ 5→9	



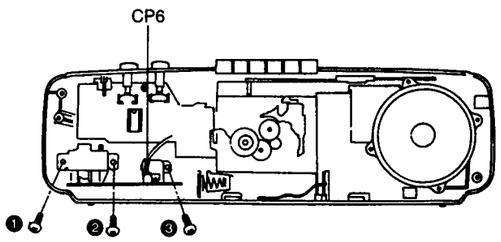
1. Fully turn the tuning knob in the direction of arrow.
2. Remove the connector (CP4).
3. Remove 3 screws (❶~❸).
4. Remove the claw.



—Removal of the Band Knob—

- Remove 4 claws in the direction of arrows.

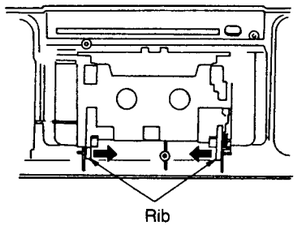
Ref. No. 11	Removal of the Power P.C.B.
Procedure 1→2→11	



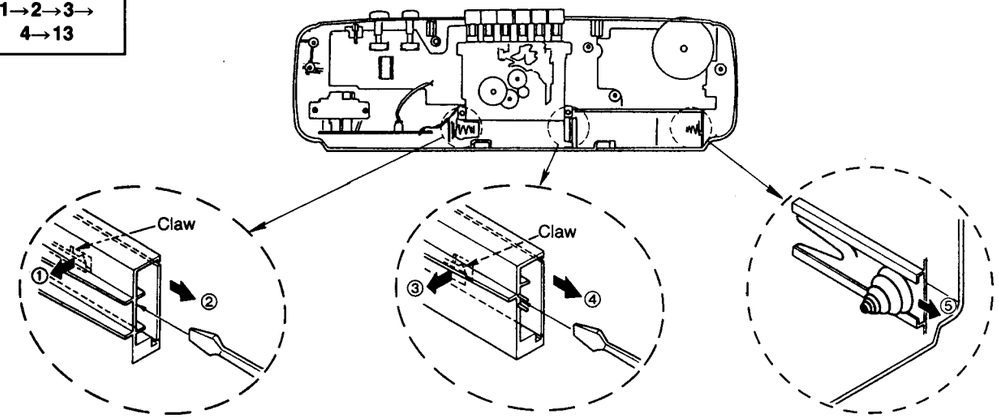
1. Remove 2 screws (❶, ❷).
2. Remove screw (❸).
3. Remove connector (CP6).

Ref. No. 12	Removal of the Cassette Compartment
Procedure 1→12	

- Remove 2 ribs in the direction of arrows.

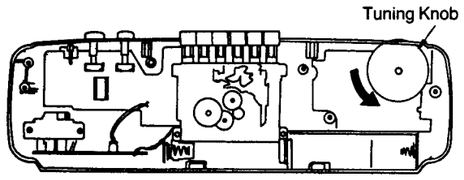


Ref. No. 13	Removal of the Battery Terminal and Battery P.C.B.
Procedure 1→2→3→ 4→13	

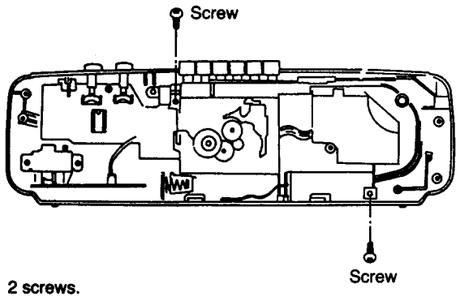


1. Remove the claw in the direction of arrow ①.
2. Pull out the battery P.C.B. in the direction of arrow ②.
3. Remove the claw in the direction of arrow ③.
4. Pull out the battery P.C.B. in the direction of arrow ④.
5. Pull out the battery terminal in the direction of arrow ⑤.

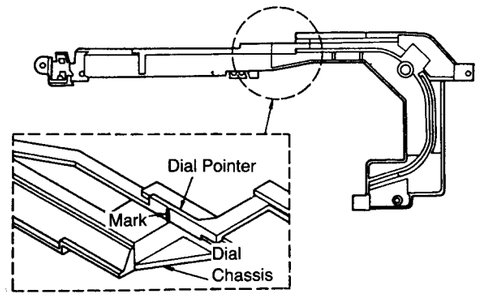
■ DIAL CHASSIS ASSEMBLY



1. Turn the tuning knob all the way in the direction of arrow.

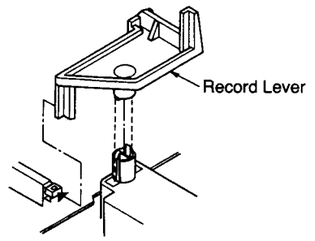


3. 2 screws.



2. Align the mark of the dial chassis.

■ RECORD LEVER ASSEMBLY



RX-FS400 RX-FS400

SCHEMATIC DIAGRAM

TUNER CIRCUIT

IC1 AN7205 FM FRONT END

IC2 RVIBA4236L FM/AM IF AMP, DET, AF AMP & AM OSC, MIX

IC3 RVIBA1332L FM MPX

TELESCOPIC ANTENNA

ANTENNA CIRCUIT

MAIN CIRCUIT

IC4 RVILA4108R POWER AMP

IC5 BA3312N P.B EQ/REC AMP/ALC

Q301 2SC2001KTA REGULATOR

LED CIRCUIT

POWER SUPPLY CIRCUIT

BUILT-IN MIC

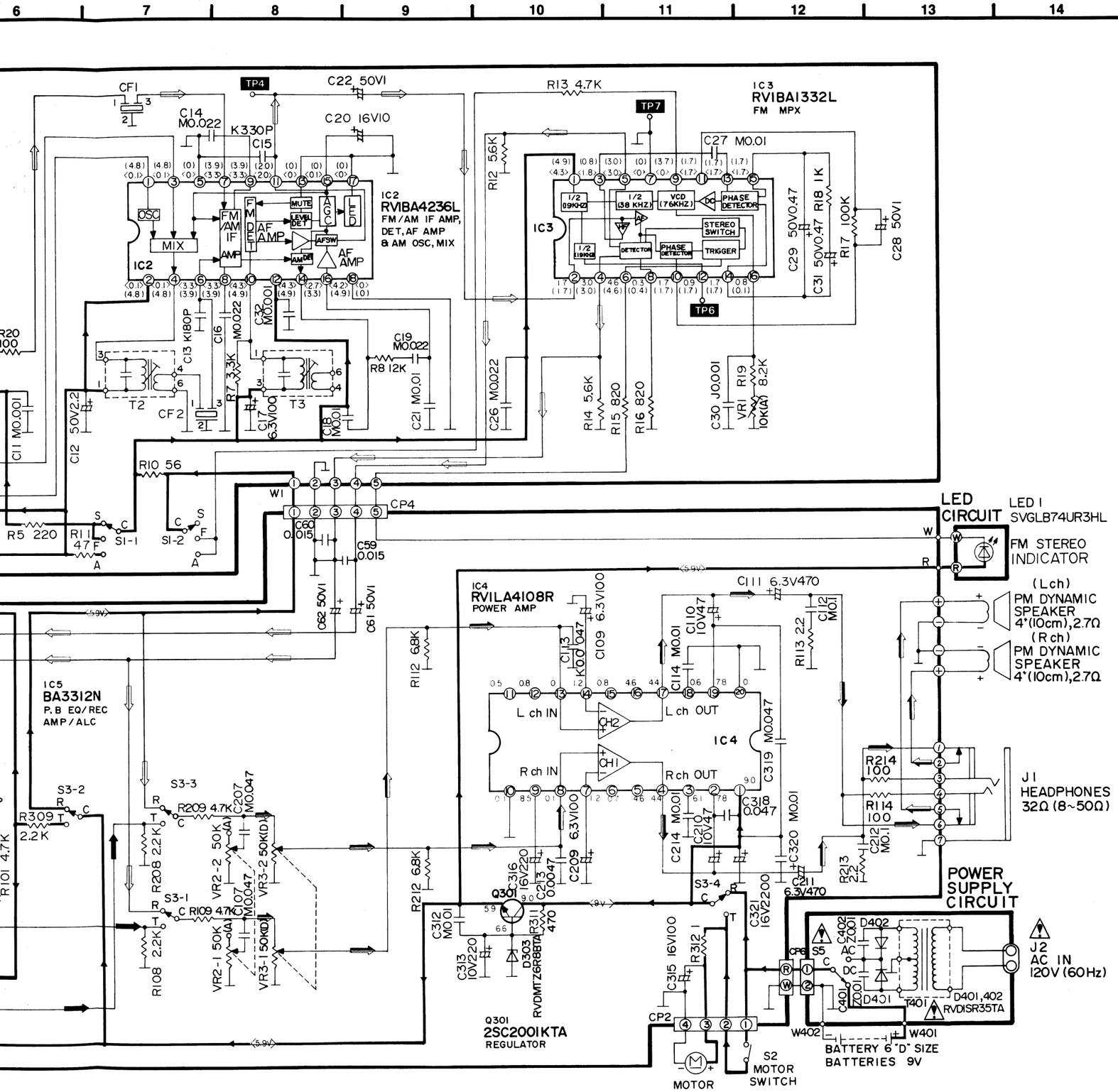
R/P HEAD

ERASE HEAD

MOTOR

S2 MOTOR SWITCH

BATTERY 6 "D" SIZE BATTERIES 9V



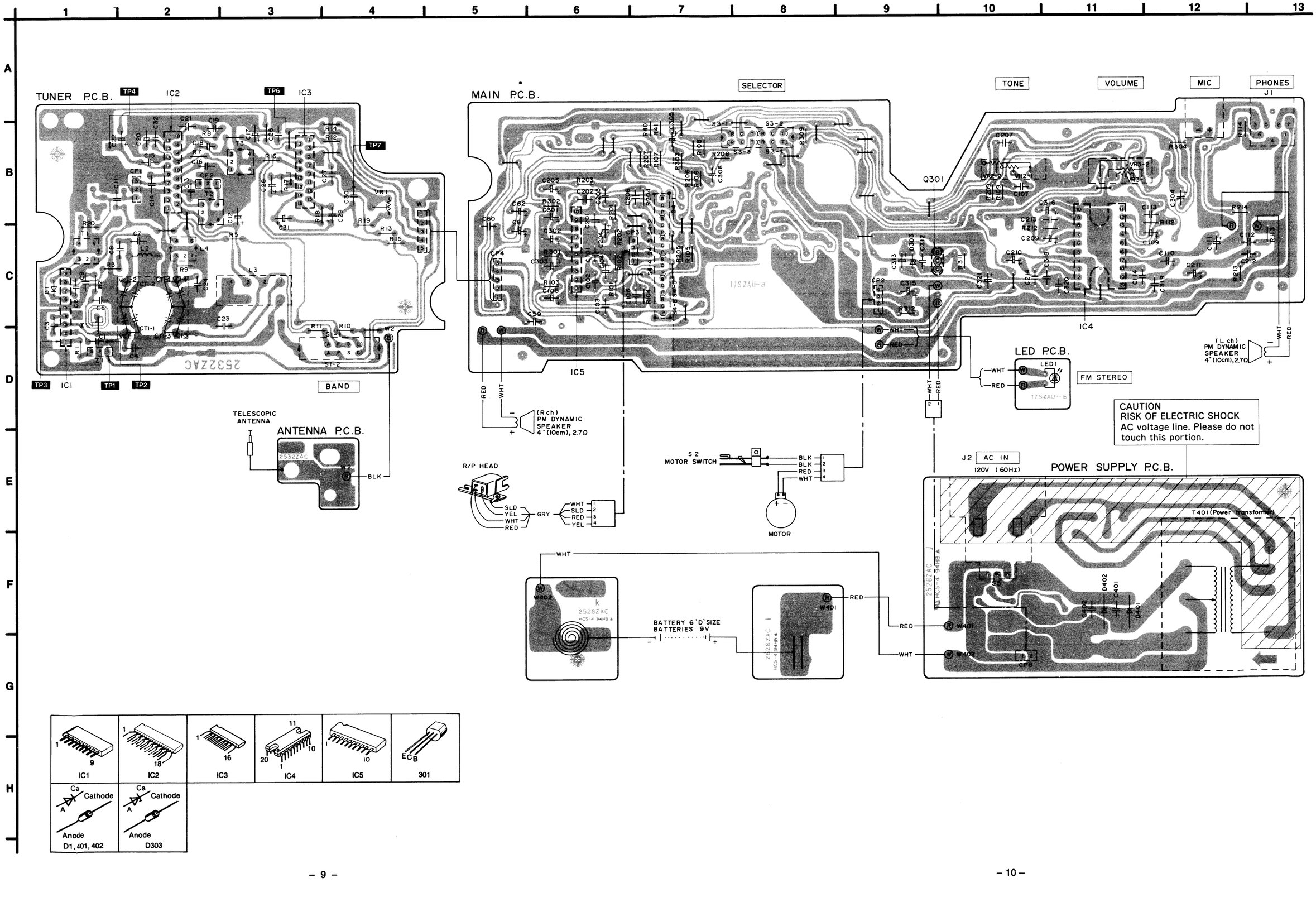
Notes:

1. S1-1, S1-2: Band select switch in "FM STEREO" position. (S...FM STEREO, F...FM, A...AM)
2. S2: Motor switch.
3. S3-1~S3-4: Function select switch in "RADIO" position. (T...TAPE/POWER OFF, R...RADIO)
4. S4-1~S4-6: Record/Playback switch in "PLAYBACK" position. (P...PLAYBACK, R...RECORD)
5. S5: AC/DC select switch in "DC" position.
6. VR1: FM VCO adjustment VR.
7. VR2-1, VR2-2: Tone control VR.
8. VR3-1, VR3-2: Volume control VR.
9. DC voltage measurements are taken with electronics voltmeter.
   The negative terminal of the battery provides negative meter connection point.
   No mark...PLAYBACK, 「 」...RECORD, ( )...AM, < >...FM
10. Battery Current: Vol. min. .....56 mA (Radio)
    140 mA (Tape Playback)
    Vol. max. .....262 mA (Radio)
    770 mA (Tape Playback)
    Measurement instruction
    (Radio: FM 60 dB, 30 % Mod.
    (Tape: 315 Hz, 0 dB
11. Important safety notice.
    Components identified by ⚠ mark have special characteristics important for safety.
    When replacing any of these components, use only manufacturer's specified parts.
12. The mark (▬) shows test point e.g. TP1 =test point 1.

•This schematic diagram may be modified at any time with the development of new technology.

...FM SIGNAL LINE
...PLAYBACK SIGNAL LINE
...RECORD SIGNAL LINE
...PLAYBACK/FM SIGNAL LINE
...+B LINE

CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT	
1. Set volume control to maximum. 2. Set tone control to TREBLE. 3. Set band switch to AM or FM ST. 4. Set function selector to RADIO or TAPE.	5. Set power source voltage to 9 V DC. 6. Output of signal generator should be no higher than necessary to obtain an output reading.

■ AM-IF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver.	455 kHz 30% Mod. at 400 Hz	Point of non-interference. (on/about 600 kHz)	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 4. and then connect the lead wires of the plug to the measuring instrument.)	T2 (AM IFT)	Adjust for maximum output.

■ AM-RF ALIGNMENT

Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver.	511 kHz	Tuning capacitor fully closed.	〃	L4 (AM OSC Coil)	Adjust for maximum output.
〃	1,753 kHz	Tuning capacitor fully open.	〃	CT1-4 (AM OSC Trimmer)	〃
〃	600 kHz	Tune to signal	〃	(*1) L3 (AM ANT Coil)	Adjust for maximum output. Adjust L3 by moving coil along the ferrite core.
〃	1,500 kHz	〃	〃	CT1-3 (AM ANT Trimmer)	Adjust for maximum output.
(*1) Fix antenna coil with wax after completing alignment.					

■ FM-IF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT	REMARKS
CONNECTIONS	FREQUENCY				
Connect to test point TP3 through ceramic capacitor (0.001 µF) Negative side to test point TP2.	10.7 MHz (SWEEP)	Point of interference (on/about 90 MHz)	Connect vert. amp. scope to test point TP4. Negative side to test point TP2.	T1 (FM 1st)	Adjust for maximum amplitude. (Refer to Fig. 2.)
〃	〃	〃	〃	T3 (FM 2nd)	Adjust for maximum amplitude. (Refer to Fig. 3.)

■ FM-RF ALIGNMENT

Connect to test point TP1 through FM dummy antenna. Negative side to test point TP2.	86.2 MHz	Variable capacitor fully closed.	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 4. and then connect the lead wires of the plug to the measuring instrument.)	L2 (FM OSC coil)	(*2) Adjust for maximum output.
〃	109.2 MHz	Variable capacitor fully open.	〃	CT1-2 (FM OSC Trimmer)	〃
〃	106 MHz	Tune to signal	〃	CT1-1 (FM ANT Trimmer)	〃
(*2) Three output responses will be present; proper tuning is the center frequency.					

■ SEPARATION ALIGNMENT

FM SIGNAL GENERTOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
98 MHz, 60 dB (CW) Connect to test point TP1 through FM dummy antenna. Negative side to TP2.	TP6...(+) TP7...(−)	VR1	19 kHz	Adjust VR1, for 19 kHz ±50 Hz reading on frequency counter.

■ HEAD AZIMUTH ALIGNMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCFM (8 kHz, −20 dB)	Headphones Jack (32Ω) (Fabricate the plug shown in Fig. 4. and then connect the lead wires of the plug to the measuring instrument.	Azimuth screw (Shown in Fig. 5)	Maximum output	●Playback mode.

■ TAPE SPEED ADJUSTMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCWAT (3 kHz)	Headphones Jack (32Ω) (Fabricate the plug shown in Fig. 4. and then connect the lead wires of the plug to the measuring instrument.	Motor VR (Shown in Fig. 6)	3000±70 Hz	1. Playback mode. 2. Adjust motor VR, for 3000±70 Hz reading on frequency counter.

■ ALIGNMENT POINT

●Please refer to Circuit Board and Wiring Connection Diagram for test point locations.

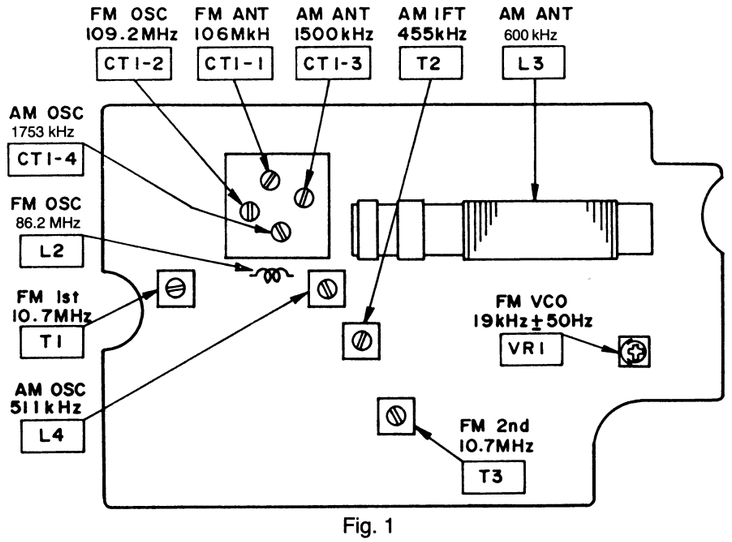


Fig. 1

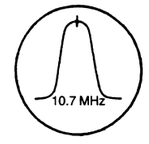


Fig. 2

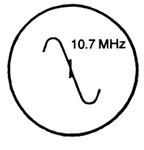


Fig. 3

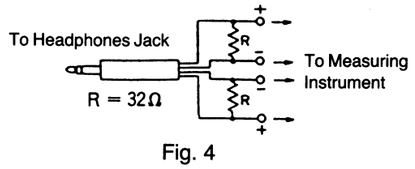


Fig. 4

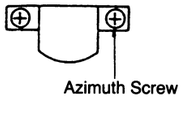


Fig. 5

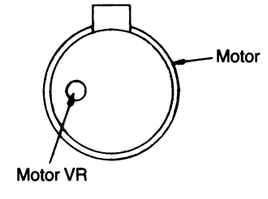


Fig. 6

■ REPLACEMENT PARTS LIST

Notes : * Important safety notice :
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)
Parts without these indications can be used for all areas.
* Ⓜ Indicates parts that are supplied by **MESA.**

Ref. No.	Part No.	Description
INTEGRATED CIRCUITS		
IC1	AN7205	I.C. FRONTEND
IC2	RVIBA4237L	I.C. FM/AM IF
IC3	RVIBA1332L	I.C. FM MPX
IC4	LA4108R	I.C. POWER
IC5	BA3312N	I.C. PRE/REC AMP
TRANSISTORS		
Q301	2SC2001K	TRANSISTOR
DIODES		
D1	RVD1SS133	DIODE
D303	RVDMTZ6R8B	DIODE
D401	RVD1SR35	DIODE
D402	RVD1SR35	DIODE
LED1	SVGLB74UR3HL	L.E.D Ⓜ
VARIABLE RESISTORS		
VR1	RVNCA14B1T-A	V.R, VCO Ⓜ
VR2	EWCUVAF15A54	V.R, TONE
VR3	EWCVVAF15D54	V.R, VOLUME
VARIABLE CAPACITORS		
VC1	RCV4PCT0V1-M	V.C. Ⓜ

Ref. No.	Part No.	Description
COILS AND TRANSFORMERS		
L2	RLD4Y53	COIL
L3	RLF2C70-0	BAR ANTENNA Ⓜ
L4	RL02B105	COIL
T1	RLI4B153	I.F.TRANSFORMER
T2	RLI2B458	I.F.TRANSFORMER
T3	RLI4B153	I.F.TRANSFORMER
T401 ⚠	RLT5K3C10A-X	POWER TRANSFORMER Ⓜ
COMPONENT COMBINATIONS		
Z1	RXABPMB6A	COMPONENT COMBINATION
FILTERS		
CF1	RVF107WDZ	CERAMIC FILTER
CF2	RVF455RB-D	CERAMIC FILTER
SWITCHES		
S1	RSS3B45XA-H	SW, BAND Ⓜ
S2	RFA71Z	SW, MOTOR
S3	RSS2D32ZA-H	SW, SELECTOR
S4	RSH2F18ZA-A	SW, REC
S5 ⚠	RJJ1A3Y	JACK W/SW
OTHERS		
J1	RJJD7S2Z	JACK, HEADPHONES
J2 ⚠	RJJ1A3Y	JACK W/SW

Ref. No.	Part No.	Description
MECHANISM		
CASSETTE DECK		
1	RFD407ZA	MOTOR PLATE
3	RF124Z	RUBBER CUSHION
4	RFM165ZA	MOTOR Ⓜ
5	RFB78ZA	BELT
6	RFB107ZA	BELT
7	RFF73ZA	FLYWHEEL
8	RFN217ZA	WASHER
9	RFN168Z	WASHER
10	RJH4C29MZAS	HEAD Ⓜ
11	RFY921ZA	HEAD ARM
12	RBR2CY002	E HEAD Ⓜ
13	RFE293Z	LUG TERMINAL
16	RFU174ZA	CHASSIS
17	RFG142ZA	GEAR
18	RFJ93ZA	REEL TABLE
19	RFY702Z	IDLER ARM
20	RFG143ZA	GEAR
21	RFJ61Z	REEL TABLE
22	RFS631Z	SPRING
23	RFY692Z	LEVER
24	RFS853ZA	SPRING
25	RFU90Z	HEAD BASE
26	RFE512ZA	TAPE GUIDE
27	RFE295Z	TAPE SENSOR
28	RFS854ZA	SPRING
29	RFR61ZA	PINCH ROLLER ARM
30	RFS634Z	SPRING
31	RFS855ZA	SPRING
32	RFY769ZA	LEVER
33	RFY694Z	ARM
34	RFY770ZA	LEVER
35	RFS856ZA	SPRING
36	RFY771ZA	LEVER
37	RFY772ZA	LEVER
38	RFS857ZA	SPRING
39	RFY773ZA	LEVER
40	RFS858ZA	SPRING
41	RFY774ZA	LEVER
43	RFY700Z	LEVER
44	RFS858ZA	SPRING
46	RFY701Z	PLATE
47	RFS859ZA	SPRING
49	RFK24ZA	POWER ARM ASS'Y
50	RFY922ZA	LEVER
51	RFD408ZA	PLATE
52	RFE513ZA	EARTH LUG
53	RFS860ZA	SPRING
54	RFS861ZA	SPRING
57	RFS862ZA	SPRING
59	RFE310Z	WASHER
60	RFY923ZA	LEVER HOLDER
61	XTN2+5F	SCREW
62	RUS9SZA	SPRING Ⓜ
63	RBC38SZA-0	BUTTON Ⓜ
201	RFE304Z	SCREW
202	RFE514ZA	SCREW
203	RFE515ZA	SCREW
204	RFE516ZA	SCREW
205	RFE305Z	SCREW
206	RFE517ZA	SCREW
209	RFE307Z	SCREW
210	RFE518ZA	SCREW
213	RFE308Z	SCREW
215	RFE519ZA	WASHER

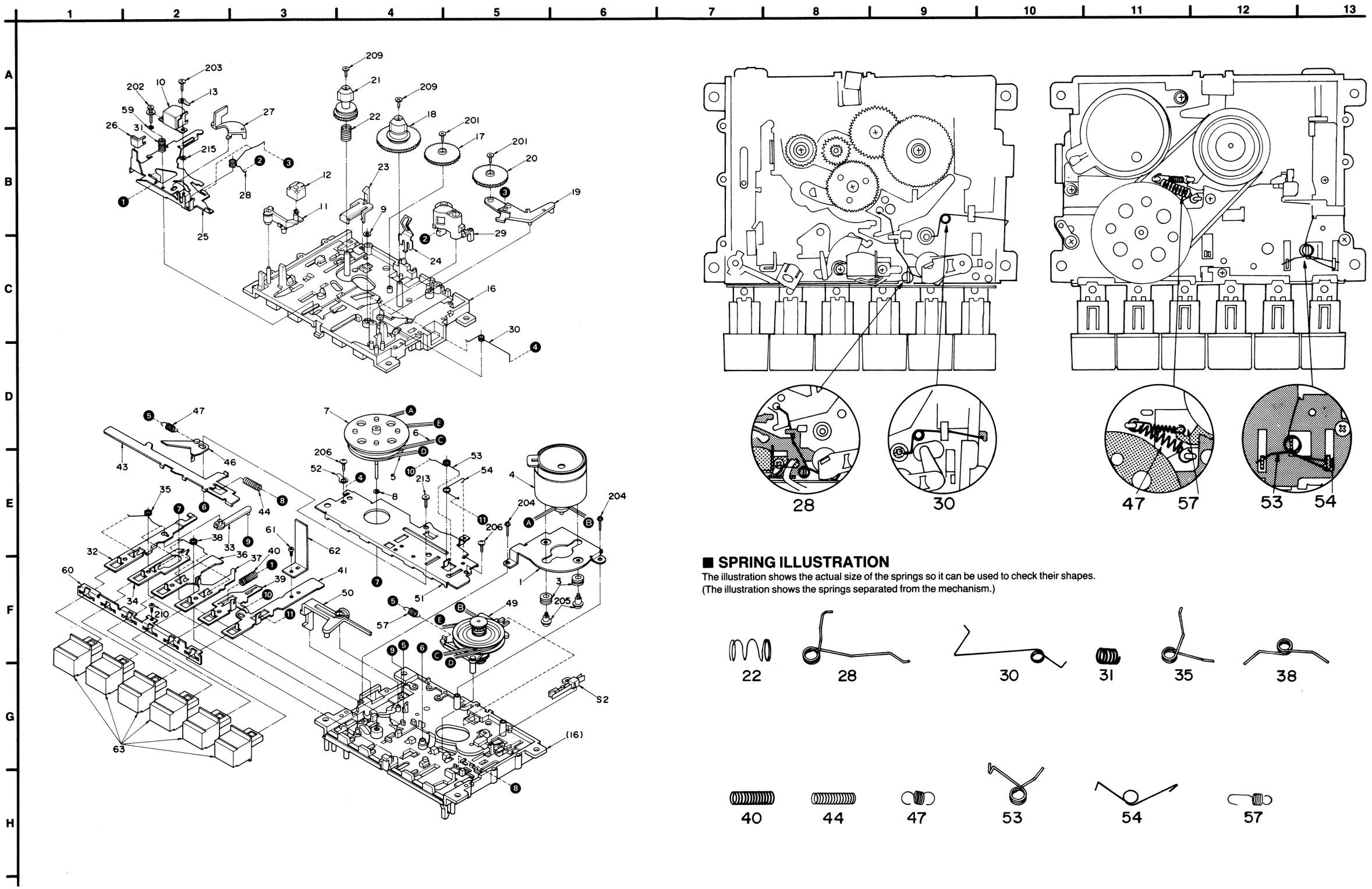
Ref. No.	Part No.	Description
CABINET AND CHASSIS		
1	RUP17SZAU	P.C.B Ⓜ
2	RJP4G18ZA	CONNECTOR(4P)
3	SJT30543-V	CONTACT
4	RJM164YA	MICROPHONE Ⓜ
5	RJS2L3Z	SOCKET(2P)
6	RJT707Z	CONTACT
7	WBB5CB-9K1M	FLAT CABLE Ⓜ
8	RUP2528YAC	P.C.B Ⓜ
9	RJP2G4Y	CONNECTOR(2P)
10	RJS4L4Z	SOCKET(4P)
11	RJT807ZB-X	CONTACT
14 (PC)	RYFXFS400PCK	REAR CABINET ASS'Y Ⓜ
14 (P)	RYFXFS400PKS	REAR CABINET ASS'Y Ⓜ
14A	RJC91003Z	BATTERY TERMINAL Ⓜ
15	RYQXFS400SKS	CASSETTE LID ASS'Y Ⓜ
15A	RDG5874ZB	GEAR

Ref. No.	Part No.	Description
16	RUP2532ZAC-1	P.C.B Ⓜ
17	RYMXFS400PKS	FRONT CABINET ASS'Y Ⓜ
18	RUW4SZB	SPRING
19	RLIA4SZB-0	CHASSIS Ⓜ
20	RDP7SZA-0	POINTER Ⓜ
21	XEARR175EA-Y	TELESCOPIC ANTENNA Ⓜ
22	XYN3+F8FY	SCREW
23	RKX5SZA-0	HANDLE BAR Ⓜ
24	RKX402ZA-0	ARM Ⓜ
25	XTC3+10CFN	SCREW
26	RKK318ZC-0	BATTERY COVER Ⓜ
27	RUB5SZA	LEVER Ⓜ
28	RBD563ZA-0	KNOB, BAND SELECTOR Ⓜ
29	RBN6SZA-0	KNOB, VOL.TONE Ⓜ
30	RBT32BYA-0	KNOB, TUNING Ⓜ
31	XYN26+C6	SCREW
32	RAS10P34ZA-H	SPEAKER Ⓜ
33	XTV3+12G	SCREW
34	XTN3+12G	SCREW
35	XTN3+20G	SCREW
36	RJC511ZBS	BATTERY SPRING(-)
37	RME10SZA	POINTER STOPPER Ⓜ
38	XTN26+8C	SCREW

Ref. No.	Part No.	Description
PACKING MATERIAL		
P1	RPN9583ZA	PAD Ⓜ
P2	RPH654ZA	SHEET Ⓜ
P3 (P)	RPK2780ZA	GIFT BOX Ⓜ
P3 (PC)	RPK2781ZA	GIFT BOX Ⓜ

Ref. No.	Part No.	Description
ACCESSORIES		
A1 ⚠ (P)	RJA22X	POWER CORD
A1 ⚠ (PC)	RJA22Y	POWER CORD
A2 (P)	RQX5201ZA	INST. MANUAL Ⓜ
A2 (PC)	RQX5202ZA	INST. MANUAL Ⓜ

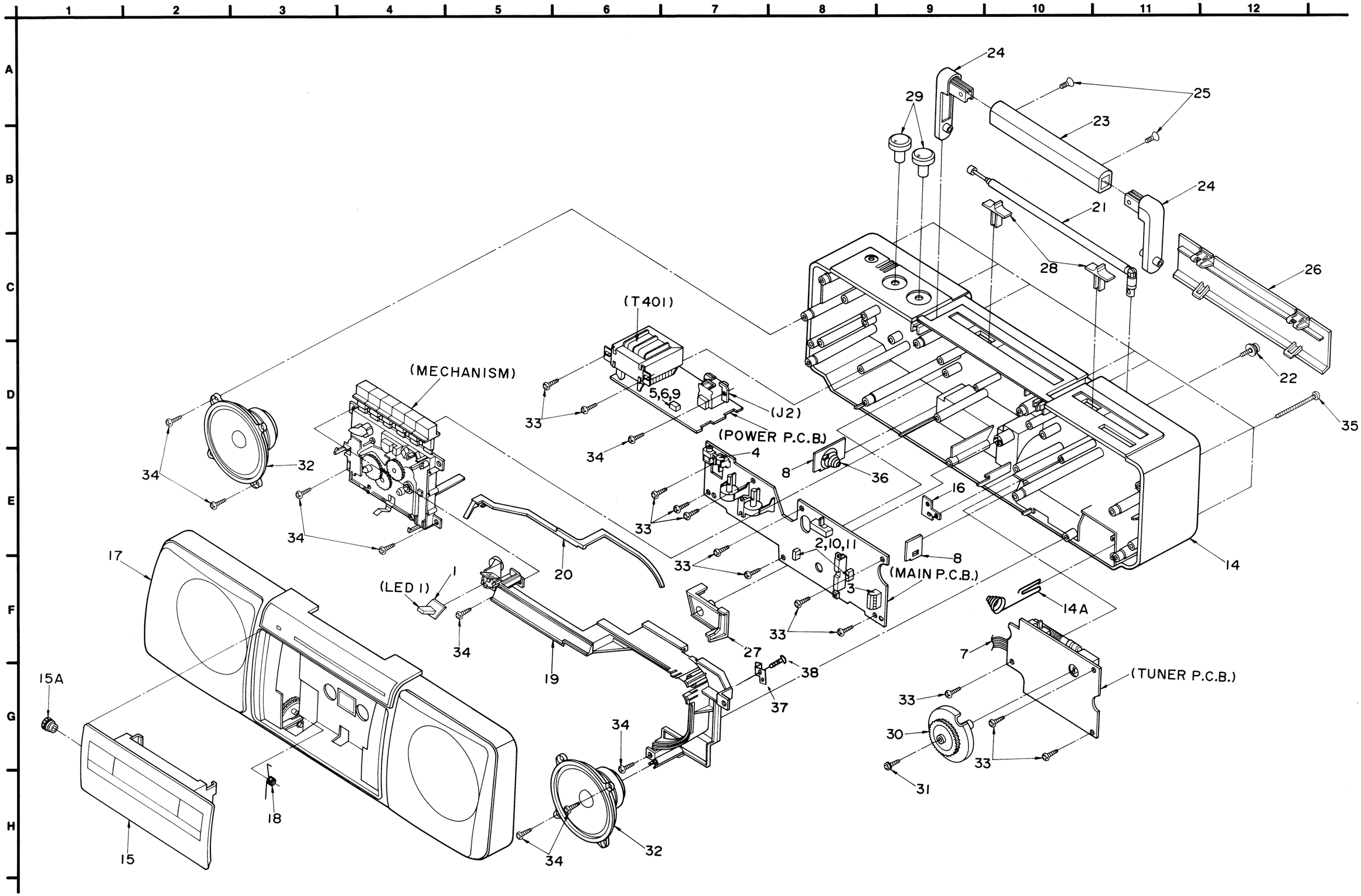
MECHANISM PARTS LOCATION



■ SPRING ILLUSTRATION

The illustration shows the actual size of the springs so it can be used to check their shapes.
(The illustration shows the springs separated from the mechanism.)

CABINET PARTS LOCATION



■ RESISTORS & CAPACITORS

Notes : ＊Important safety notice :
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＊Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)
Parts without these indications can be used for all areas.

Numbering System For Resistors

Example:

ERD	25	F	J	102
Type	Wattage (1/4W)	Shape	Tolerance	Value (1KΩ)
ERX	2	AN	J	471
Type	Wattage (2W)	Shape	Tolerance	Value (470Ω)

Numbering System For Capacitors

Example:

ECKD	1H	102	Z	F
Type	Voltage (50V)	Value (0.001μF)	Tolerance	Unique
ECEA	50	M	330	
Type	Voltage (50V)	Characteristics	Value (33μF)	

● Capacity values are in microfarads (μF) unless specified otherwise, P = Pico-farads (pF) F = Farads (F).
● Resistance values are in ohms (Ω), unless specified otherwise, 1K = 1,000Ω, 1M = 1,000kΩ

Resistor Type	Wattage	Tolerance
ERD : Carbon	10 : 1/8W 12 : 1/2W	J : ±5%
ERG : Metal Oxide	14 : 1/4W 25 : 1/4W	F : ±1%
ERQ : Fuse Type Metal	1A : 1W 18 : 1/8W	G : ±2%
ERX : Metal Film	S2 : 1/4W S1 : 1/2W	J : ±5%
ERD L : Carbon (chip)	2F : 1/4W 50 : 1/2W	K : ±10%
ERO K : Metal Film (chip)	2A : 2W 3A : 3W	M : ±20%
ERC : Solid	6G : 1/10W 8G : 1/8W	
ERF : Incombustible Box-Shaped		
ERM : Wire-Wound		
RRJ : Chip Resistor		
ERJ : Chip Resistor		

Capacitor Type	Voltage	Tolerance
ECE : Electrolytic	0J : 6.3V 1A : 10V	K : ±10%
ECCD : Ceramic	1C : 16V 1E : 25V	M : ±20%
ECKD : Ceramic Capacitor	1H : 50V 1V : 35V	Z : +80 −20 %
ECQM : Polyester	50 : 50V 05 : 50V	J : ±5%
ECQP : Polypropylene	2H : 500V 2A : 100V	G : ±2%
ECG : Ceramic	1 : 100V 1J : 63V	F : ±1%
ECEA N : Non Polar Electrolytic	KC : 400V AC	C : ±0.25pF
QCU : Ceramic (Chip Type)	KC : 125V AC	D : ±0.5pF
ECUX : Ceramic (Chip Type)	(UL)	
ECF : Semiconductor		
EECW : Liquid electrolyte double layer capacitor		

Ref. No.	Part No.	Value.	Ref. No.	Part No.	Value.	Ref. No.	Part No.	Value.
C320	ECKD1H103ZF	0.01 50	C321	ECEA1CS222	2200 16	C401	ECKD1H103ZF	0.01 50
						C402	ECKD1H103ZF	0.01 50

Ref. No.	Part No.	Value.	Ref. No.	Part No.	Value.	Ref. No.	Part No.	Value.
RESISTORS(VALUE,WATTAGE)			R209	ERDS2TJ472	4.7K 1/4	C32	RCBS1H102KB	0.001 50
R1	ERDS2TJ330	33 1/4	R212	ERDS2TJ682	6.8K 1/4	C59	ECFT1C153MD	0.015 16
R2	ERDS2TJ101	100 1/4	R213	ERDS2TJ2R2	2.2 1/4	C60	ECFT1C153MD	0.015 16
R3	ERDS2TJ4R7	4.7 1/4	R214	ERDS2TJ101	100 1/4	C61	ECEA1HU010	1 50
R5	ERDS2TJ221	220 1/4	R301	ERDS2TJ474	470K 1/4	C62	ECEA1HU010	1 50
R7	ERDS2TJ332	3.3K 1/4	R302	ERDS2TJ101	100 1/4	C101	RCBS1H102KB	0.001 50
R8	ERDS2TJ123	12K 1/4	R303	ERDS2TJ332	3.3K 1/4	C102	RCBC1H331KB	330P 50
R9	ERDS2TJ394	390K 1/4	R304	ERDS2TJ222	2.2K 1/4	C103	ECFT1C223MD	0.022 16
R10	ERDS2TJ560T	56 1/4	R309	ERDS2TJ222	2.2K 1/4	C104	ECEA1AU470	47 10
R11	ERDS2TJ470	47 1/4	R311	ERDS2TJ471	470 1/4	C105	ECEA1CU100	10 16
R12	ERDS2TJ562	5.6K 1/4	R312	ERDS2TJ1R0	1 1/4	C107	ECFV1E473MD	0.047 25
R13	ERDS2TJ472	4.7K 1/4	R323	ERDS2TJ560T	56 1/4	C109	ECEA0JU101B	100 6.3
R14	ERDS2TJ562	5.6K 1/4	CAPACITORS(VALUE,VOLTAGE)			C110	ECEA1AU470	47 10
R15	ERDS2TJ821	820 1/4	C1	RCBS1H102KB	0.001 50	C111	ECEA0JU471	470 6.3
R16	ERDS2TJ821	820 1/4	C3	RCBC1H4R7KC	4.7P 50	C112	ECFV1C104MD	0.1 16
R17	ERDS2TJ104	100K 1/4	C4	RCBS1H200JC	20P 50	C113	RCBS1C472MX	0.0047 16
R18	ERDS2TJ102	1K 1/4	C5	RCBS1H102KB	0.001 50	C114	ECKD1H103ZF	0.01 50
R19	ERDS2TJ822	8.2K 1/4	C6	RCBS1H180JC	18P 50	C201	RCBS1H102KB	0.001 50
R20	ERDS2TJ101	100 1/4	C7	RCBS1H180JC	18P 50	C202	RCBC1H331KB	330P 50
R40	ERDS2TJ103	10K 1/4	C8	RCBC1H470JL	47P 50	C203	ECFT1C223MD	0.022 16
R41	ERDS2TJ103	10K 1/4	C9	RCBS1H102KB	0.001 50	C204	ECEA1AU470	47 10
R101	ERDS2TJ472	4.7K 1/4	C11	RCBS1H102KB	0.001 50	C205	ECEA1CU100	10 16
R102	ERDS2TJ560T	56 1/4	C12	ECEA1HU2R2	2.2 50	C207	ECFV1E473MD	0.047 25
R103	ERDS2TJ222	2.2K 1/4	C13	RCBS1H181KB	180P 50	C209	ECEA0JU101B	100 6.3
R104	ERDS2TJ103	10K 1/4	C14	ECFT1C223MD	0.022 16	C210	ECEA1AU470	47 10
R105	ERDS2TJ222	2.2K 1/4	C15	RCBC1H331KB	330P 50	C211	ECEA0JU471	470 6.3
R106	ERDS2TJ562	5.6K 1/4	C16	ECFT1C223MD	0.022 16	C212	ECFV1C104MD	0.1 16
R107	ERDS2TJ334	330K 1/4	C17	ECEA0JU101B	100 6.3	C213	RCBS1C472MX	0.0047 16
R108	ERDS2TJ222	2.2K 1/4	C18	RCBS1C103MYY	0.01 16	C214	ECKD1H103ZF	0.01 50
R109	ERDS2TJ472	4.7K 1/4	C19	ECFT1C223MD	0.022 16	C301	ECEA0JU221	220 6.3
R112	ERDS2TJ682	6.8K 1/4	C20	ECEA1CU100	10 16	C302	ECEA1HU3R3	3.3 50
R113	ERDS2TJ2R2	2.2 1/4	C21	RCBS1C103MYY	0.01 16	C303	ECEA1AU470	47 10
R114	ERDS2TJ101	100 1/4	C22	ECEA1HU010	1 50	C304	ECEA1CU100	10 16
R201	ERDS2TJ472	4.7K 1/4	C23	ECFT1C223MD	0.022 16	C305	ECEA1HU0R1	0.1 50
R202	ERDS2TJ560T	56 1/4	C24	RCBS1H5R6KC	5.6P 50	C306	ECKF1H102KB	0.001 50
R203	ERDS2TJ222	2.2K 1/4	C26	ECFT1C223MD	0.022 16	C312	ECKD1H103ZF	0.01 50
R204	ERDS2TJ103	10K 1/4	C27	RCBS1C103MYY	0.01 16	C313	ECEA1AU221	220 10
R205	ERDS2TJ222	2.2K 1/4	C28	ECEA1HU010	1 50	C315	ECEA1CU101	100 16
R206	ERDS2TJ562	5.6K 1/4	C29	ECEA50ZR47E	0.47 50	C316	ECEA1CV221SE	220 16
R207	ERDS2TJ334	330K 1/4	C30	ECQP1102JZT		C317	ECEA1EU4R7	10 50
R208	ERDS2TJ222	2.2K 1/4	C31	ECEA50ZR47E	0.47 50	C318	ECFV1E473MD	0.047 25
						C319	ECFV1E473MD	0.047 25

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